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An
Inaugural Dissertation
On
Intermittent Fever
Submitted To the Examination
Of the
Trustees And Medical Faculty
Of the
University Of Pennsylvania
For The Degree
Of
Doctor Of Medecine
By
Charles Shoemaker
Of Pennsylvania
December 4th
A. D.
1826.

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A Dissertation On Intermittent Fever. &c

The title of Intermittent is applied to that kind of fever which consists of a succession of paroxysms, between each of which there is a distinct intermission from febrile symptoms, or an apyrexial period.

Different names have been applied to this fever, according to the length of time observed between the periods of its return. When the disease consists of a number of paroxysms, it is generally observed that the intervals between them are nearly equal; but these intervals are of different lengths in different persons, or in the same person at different times. The most usual interval is that of forty eight hours, which is called Tertian. The next most frequent is that of twenty four hours, and is named Quotidian. There is another of seventy two hours, which is termed the Quartan.

When these fevers occur in the spring of the year, they are called vernal; and when they arise in autumn, they have received the name of autumnal.

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Of tertian and quartan intermittents there are several varieties. The following may be enumerated as of the most frequent occurrence. The double tertian, having a paroxysm every day, with the alternate paroxysms alike. The double tertian, with two paroxysms every other day. The tripple tertian, with two paroxysms on one day, and one on the next. The double quartan, with two paroxysms on the first day, none on the second and third, and two again on the fourth. The double quartan, with a paroxysm on the first day, and another on the second, but none on the third. The tripple quartan, with three paroxysms every fourth day. The tripple quartan, with a paroxysm every day, every fourth paroxysm being alike.

Intermittents frequently prove obstinate, and are of long duration, especially in warm climates, and they not unfrequently resist every mode of treatment, so as to become very distressing to the person affected; and not unfrequently give

rise to other chronic complaints, particularly an enlargement of the liver and spleen.

Marsh miasmata, or the effluvia arising from stagnant waters, or marshy ground, when acted upon by heat, are supposed to be the most frequent exciting cause of this fever. In low marshy ground, the putrefaction of both vegitable and animal matter is always going on in the warm seasons; and hence it is generally believed, that vegitable or animal putrefaction imparts a peculiar quality to the watery particles of the effluvia arising from thence. According to the observations of some Physicians, it has been stated, that marsh miasmata, when much diluted with aqueous exhalations, as in seasons when an unusual quantity of rain has fallen, are nearly inert; but when arising from stagnant waters of a concentrated foulness in consequence of great drought and heat in the latterend of summer and the

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beginning of autumn they act with great violence and malignancy. People in warm climates usually take their exercise in the evening, being prevented through the day by the excessive heat; the cool and damp air to which they are thereby exposed, not unfrequently produce fever. The winds in some marshy countries produce fever when they blow over marshes, and cease to spread when the direction of the wind is changed. Improper diet, excessive fatigue, loss of sleep, intemperance in eating and drinking, great anxiety, exposure to cold, sleeping in damp rooms or beds, wearing damp clothes, a warm moist or cold damp atmosphere, the sudden suppression of an accustomed evacuation, the recession of eruptions, all which have been ranked among the exciting causes of intermittents: but it is more reasonable to suppose that these circumstances act by inducing that state of the system which predisposes to these complaints. By some it has been imagined,

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

of the primary action of the intermittent poison, have [illegible] to [illegible] [illegible] of [illegible] [illegible] and [illegible] excitability, the [illegible] of the [illegible] [illegible]; thus the [illegible] of the [illegible] [illegible] [illegible], connected with that of debility and [illegible], as being under [illegible] the [illegible] [illegible] [illegible] [illegible] in [illegible] the [illegible] of the [illegible] [illegible], [illegible] [illegible] [illegible] to the [illegible] [illegible], and the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]; and [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of time to [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] all that [illegible], [illegible] [illegible] [illegible] [illegible] of [illegible] [illegible] [illegible] [illegible], and refer it to a [illegible] of [illegible] [illegible] [illegible] [illegible] accident. The [illegible] [illegible] [illegible] [illegible] [illegible] constraint [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible]

[illegible] law of our nature, from which we would derive the [illegible] [illegible] [illegible]

[illegible] the pulse was [illegible] [illegible] [illegible]

of the attack are very severe. then [illegible] [illegible]; when these symptoms have con[illegible] some time [illegible] [illegible] [illegible], and is gradually diffused, and it soon extends itself over the whole body; as the sweat continues to flow the heat and the [illegible]. In most instances, the urine deposits a sediment, the [illegible] is [illegible] full, and most of the functions are restored to their ordinary state. The patient is however left in a weak and [illegible] condition: this constitutes the third stage.

Having pointed out the phenomena usually attendant on a paroxysm of intermittent fever, and likewise the mode of succession, it may not be unworthy of observation to notice, that in different cases they may occur in different degrees, that the series of them is not always complete; and that the several stages in the time they occupy, may be in different proportions to each other.

[illegible] a [illegible] of strength [illegible]
to [illegible] in the attack of an intermittent fever,
as [illegible] of the [illegible]
[illegible] is very uncommon. Patients [illegible]
[illegible] [illegible] in intermittents [illegible]
inflammation [illegible] of the [illegible]
[illegible] of the [illegible] [illegible] is
happens [illegible] [illegible]; but
[illegible] [illegible] considerable length they
are apt to induce other complaints, such as loss
of [illegible], [illegible] [illegible] of the [illegible] spleen,
[illegible], [illegible] which is the [illegible]
[illegible] [illegible]. In warm climates particularly
[illegible] [illegible] [illegible]
[illegible] [illegible]
[illegible] they degenerate into [illegible] fevers. [illegible]
the [illegible] [illegible] [illegible]
their recurrence, and [illegible] the [illegible] [illegible].
[illegible] may calculate on [illegible] they
[illegible] [illegible] [illegible] [illegible].

[illegible]

[illegible]

[illegible]

and secondly, during the intervals to prevent its return at the usual time by other means, both by exciting a new action in the system by administering certain remedies at the commencement, or immediately on its appearance, or by certain other things, which the varied circumstances induce us to employ, as the cause of the disease, and counteracting the injury. By administering an emetic immediately on the appearance of the cold stage, we may sometimes succeed in arresting the morbid accelerated motion caused by the cause of the disease, and thereby prevent a return of the paroxysms. In like the best of these agents, which, in case of cold contracted with intermittent fever, may be given; and if it cannot be effected with, perhaps one medicine sufficient, yet, with bark and such strengthening and invigorating dispositions, something will be necessary. Having by these means prepared the system, some remains should be resolved upon

[illegible] and may [illegible] [illegible] [illegible]

[illegible] may [illegible] [illegible] [illegible] should [illegible] [illegible] [illegible] [illegible], if the [illegible] be not [illegible], and the skin moist. It is [illegible] the bark [illegible] [illegible] doses, five or six grains [illegible] [illegible] [illegible] [illegible] should be added to each dose, a [illegible] of cold [illegible] [illegible] with [illegible], the [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. In some instances the bark [illegible] [illegible] [illegible] [illegible] [illegible]. Its irritating effect may be remedied by adding five or six drops of laudanum to each dose; and when [illegible] the [illegible] [illegible] together with [illegible] in the stomach, flatulence and pain. The bark may be taken in lime water, or conjoined with the carbonate [illegible] or ten grains of salt of tartar or magnesia. Some patients are subject to profuse sweats [illegible] [illegible]ly, in such cases the bark should be combined with [illegible] [illegible] grains of the rust of steel; or ten or fifteen drops of elixir vitriol, and taken [illegible] [illegible] [illegible] when these evacuations proceed as

by regularity [illegible] [illegible] on [illegible] [illegible] [illegible]
ried with great [illegible] [illegible] [illegible] [illegible] their
prevalence, we must [illegible] [illegible] [illegible]
[illegible] remain [illegible], catharses, and
diaphoretics. [illegible] [illegible] will not yield
to the bark even when all the usual [illegible];
[illegible] have [illegible] [illegible]. In such cases we may
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
of the [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] cast, and in [illegible] [illegible] the [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible]. In these [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible], should be [illegible]; [illegible]
[illegible] [illegible] [illegible] length, [illegible]
[illegible] [illegible] to make [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] may
[illegible] [illegible] [illegible] [illegible] small and

[illegible] [illegible] [illegible] [illegible] [illegible] it both
it excites its [illegible] throughout [illegible] [illegible] [illegible]
tion is inferior. [illegible] [illegible] [illegible] [illegible] [illegible]
the strengthening remedies, to give tone to the system.

From the view of these observations it follows, that the Peruvian bark is not always to be employed as a remedy in every case of intermittents; but that much caution is necessary in the use of it, lest it be turned into abuse; for unless the system be previously prepared by suitable evacuations, the administration of bark in any other form is generally fraught with the worst consequences.

The Bark of the root of Virginia Snakeroot possesses in a great measure the same qualities as the Peruvian which has been [illegible] [illegible] [illegible] [illegible], not only in the cure of intermittents, but other diseases which are treated with the Peruvian bark: it may be taken in the

same manner, and in about doses. In substance it is most efficacious; and if well pulverized, it will be found more [illegible] than the Peruvian bark, and not so apt to excite vomiting. Another mode in which this remedy may be employed to great advantage from its abundance in our country, is by bathing twice or thrice a day in a strong decoction of it; which, to children and patients whose stomachs will not bear [illegible], will prove exceedingly serviceable. When the Black oak bark is not convenient, the Red oak bark, [illegible] considered as [illegible] may be substituted, which has been [illegible] to have had the [illegible] effect in [illegible] [illegible].

Bathing in a strong decoction of it [illegible] recommended, particularly in the last stage of fevers. Dr. Barton [illegible] [illegible] us, that [illegible] the bark of the [illegible] oak [illegible] with the [illegible] and that [illegible]

[illegible] bark the [illegible]
[illegible] country is also an excellent substitute for
Peruvian bark, particularly in the case of intermittents: chewing the bark of the wild orange tree, and the American Pyrus ulmifolia may be given in the same proportions as the Peruvian bark that is made use of the [illegible]
but the Columbo root is a useful medicine in this complaint, and will often be claimed if the stomach rejects the bark or any form has been given: it is also a useful remedy joined with that. The Columbo root [illegible]
[illegible] of that [illegible]

Wine and water then into sixteen powders, respectively may be taken. Wine may be bottled disposed to be sweet, or else have a sweating and taking of the liver, especially if a purge be necessary, and some mercurial action be in the system if one two or three drams taken every night and morning

[illegible] weeks. [illegible] consider
[illegible] enough for [illegible]
[illegible] at the [illegible] [illegible] [illegible]
[illegible] [illegible] when he is [illegible]
[illegible] the other [illegible] reasons it [illegible] is that the
[illegible] [illegible] should [illegible] [illegible]
[illegible] [illegible] good [illegible] [illegible]
[illegible] [illegible]. Before some evacuating medicine
[illegible] [illegible], [illegible] which the [illegible] may
be administered [illegible] [illegible] [illegible] [illegible] during
the [illegible], [illegible] gradually increasing the
[illegible] [illegible] [illegible] [illegible] [illegible] to its [illegible]
tion. But among the medicines [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] which may
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible], [illegible] [illegible] [illegible] [illegible] and [illegible]
[illegible] [illegible] to the [illegible] and constitution
of the patient.

Stimulants [illegible] tried before the pit, by inducing a healthy change in the system, have frequently [illegible] the same. [illegible] [illegible] the [illegible] of the pit [illegible] required [illegible] before the [illegible]. In the time we were in attendance for the exhibition of [illegible] in that pit. We [illegible] that, [illegible] the [illegible], it had [illegible] the [illegible] [illegible] in the old pit, [illegible] it; and that when [illegible] now of at the commencement of the [illegible] generally [illegible] immediately [illegible] in the pit. We observed the following effect to ensue. First [illegible] the pit, and this with [illegible] of the earth was found to [illegible] it [illegible]

[illegible] given [illegible] to the head. took at the burning heat of the fever. and occasioned a sweat. The sweat was attended with a [illegible] of the [illegible] instead of the [illegible] which [illegible] [illegible] [illegible] [illegible] after the [illegible], and was always more [illegible] than in those who had not taken [illegible]. [illegible] after [illegible] [illegible] [illegible] to [illegible] to [illegible] in the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the [illegible] [illegible] that [illegible] that the [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible] [illegible] the [illegible] ment of the [illegible], [illegible] the [illegible], and lessening the [illegible] of the [illegible], [illegible] the constitution [illegible] [illegible], [illegible] [illegible] [illegible] in [illegible] [illegible] [illegible]

[illegible]

medicine is as necessary as a change of air, that the system may not become habituated to any one mode of treatment; therefore it ought to be remembered that neither bark nor any other tonic medicine should be continued longer than a fortnight at a time, but should be changed for another article whose virtues are nearly the same. After a week or so, the former may be resumed in case the disease should prove obstinate; and to bring about the necessary change in the constitution, large doses should be given. As to regimen in the cold fit very little more is necessary than some warm drinks, in the hot fit the drink may be barley water, mint or balm tea, lemonade, toast and water, when the sweating begins. The drinks just enumerated may be enlivened with wine; and if the patient be able to take it he may be allowed some nourishment during the intermission. The diet should be as nutricious as the patients appetite and digestion will allow. Every thing that

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ise is
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tends to keep up a gentle perspiration and to give tone to the vessels is usefull: hence moderate exer-cise is singularly proper, since nothing more conduces to these effects: the exercise should be of that kind to which the patient has been most accustomed, and taken in the open air, unless wet weather or a damp situation forbid. But the ut-most care should be taken that exercise be not pushed to fatigue, which, by inducing debility, carries thousands to untimely graves. ~